R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

SUPPORT FOR CLAIM AMENDMENTS

Support for the amendments to the claims can be found in the drawings as originally filed, for example, in FIGS. 2-4 and 7-11 and in the specification as originally filed, for example, on page 29, line 12 through page 34, line 10. As such, no new matter has been introduced.

IN THE DRAWINGS

FIG. 6 has been amended to include an arrowhead pointing to element 162. Support for the amendment can be found in the specification as originally filed, for example, on page 19, lines 1-14. As such, no new matter has been introduced. A replacement drawing sheet is submitted herewith.

IN THE SPECIFICATION

The objection to the abstract has been obviated by appropriate amendment and should be withdrawn.

CLAIM OBJECTIONS

The objection to claim 10 has been obviated by appropriate amendment and should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1-6 and 8-22 under 35 U.S.C. §102(e) as being anticipated by Sun et al. (U.S. Patent Publication No. 2003/0223495; hereafter Sun) has been obviated by appropriate amendment and should be withdrawn.

Sun is directed to methods and systems for image intra-prediction mode communication (Title of Sun).

In contrast to Sun, the presently claimed invention (claim 1) provides a second processing circuit configured to determine availability of intra 4 x 4 prediction modes for each luma sub-block of a current macroblock in response to available reconstructed samples adjacent to a current macroblock, where (i) an intra 4 x 4 prediction mode 3 and an intra 4 x 4 prediction mode 7 are indicated as available when a first group of the reconstructed samples only adjacent to a top edge of a current luma sub-block of the current macroblock is available and a second group of the reconstructed samples only adjacent to a left edge of the current luma sub-block is not available and (ii) an intra 4 x 4 prediction mode 8 is indicated as available when the first group of the reconstructed samples only adjacent to the top edge of the

current luma sub-block is not available and the second group of the reconstructed samples only adjacent to the left edge of the current luma sub-block is available. Claims 13 and 14 include similar limitations. Sun does not disclose or suggest each and every element of the presently claimed invention, arranged as in the present claims.

Assuming, *arguendo*, the prediction modes 3, 7 and 8 disclosed in Sun are similar to the presently claimed intra 4 x 4 prediction modes 3, 7 and 8 (as suggested on page 4, lines 7-16 of the Office Action), Sun does not disclose or suggest each and every element of the presently claimed invention, arranged as in the present claims. Specifically, paragraphs 0041-0046 of Sun show that the prediction modes 3, 7 and 8, as taught by Sun, require reconstructed samples A-P which are adjacent to both the top edge and the left edge of the block being predicted (see FIGS. 2 and 4-8 and paragraphs 0041-0046 of Sun). Since Sun discloses that the prediction modes 3, 7 and 8 require reconstructed samples A-P which are adjacent to both edges of the block being predicted, it follows that Sun does not disclose or suggest a second processing circuit configured to determine availability of intra 4 x 4 prediction modes for each luma sub-block of a current macroblock in response to available reconstructed samples adjacent to a current macroblock, where (i) an intra 4 x 4 prediction mode 3 and an intra 4 x 4 prediction mode 7 are indicated as available when a first

group of the reconstructed samples only adjacent to a top edge of a current luma sub-block of the current macroblock is available and a second group of the reconstructed samples only adjacent to a left edge of the current luma sub-block is not available and (ii) an intra 4 x 4 prediction mode 8 is indicated as available when the first group of the reconstructed samples only adjacent to the top edge of the current luma sub-block is not available and the second group of the reconstructed samples only adjacent to the left edge of the current luma sub-block is available. Therefore, Sun does not disclose or suggest each and every element of the presently claimed invention, arranged as in the present claims as required to establish a *prima facie* case of anticipation under MPEP §2131. As such, the presently claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

Claims 2-12 and 15-22 depend, directly or indirectly, from either claim 1 or claim 14 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claim 7 under 35 U.S.C. §103 as being unpatentable over Sun has been obviated by appropriate amendment and should be withdrawn.

Claim 7 depends directly from claim 1 which is believed

to be allowable. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

New claims 23 and 24 depend, directly or indirectly, from either claim 1 or claim 14 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references.

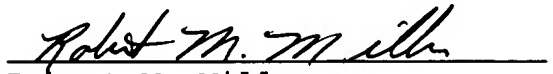
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicant's representative at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit Account No. 12-2252.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.



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